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*Full Rocket Leaflet
(Left Side)*

PROGRESS REPORT

FOR

50X1

SEPTEMBER 1956

ON

4-INCH ROCKET

DOC	<u>78</u>	REV DATE	<u>29 MAY 1960</u>	BY	<u>018373</u>
ORIG COMP	<u>56</u>	GPI	<u>56</u>	TYPE	<u>03</u>
ORIG CLASS	<u>5</u>	PAGES	<u>2</u>	REV CLASS	<u>C</u>
JUST	<u>22</u>	NEXT REV	<u>2010</u>	AUTH:	WH 7-2

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SD 1145
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November 2, 1956

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Early in September the proposed time delay was tested in the static test stand. In each of two tests, the delay time was approximately two seconds longer than anticipated. Flight models were made incorporating the time delay and although the flight time was designed longer than usual, the burster functioned just as the unit hit the ground. The apparent cause of extended time was because of deterioration in storage. This is of no great concern when incorporated into the rocket, since the motor tube will be stored as a sealed unit. Additional units are in preparation.

Some difficulty had been experienced with scraps of propellant blowing past the trap. A new trap was designed which provided smaller holes in the gridwork and yet allowed sufficient gas passage. This trap was static tested and will become the standard type for the large size tubing.

Efforts are being made to extend the upper pressure limit of the 1-1/2" motor tube assembly. It was found that by the addition of an internal ring backing up the snap ring, the pressure limit could be extended 20 per cent. By riveting this ring and modifying the bonding resin with a small amount of plasticizing agent, the limit was extended another 20 per cent.

Future Work

New delay units are in preparation and will be static tested when completed.

A new type fin is being designed which will be flight tested as soon as possible. If successful, considerable saving in size can be accomplished since it is much slimmer.

Additional changes in design of the motor tube and modification of bonding resin will be static tested so as to raise the upper pressure limit.

Financial Statement

Total Amount of Contract (Phase III)

Obligations for September, 1956

Total Obligations to September 30, 1956

Balance of Contract

Expiration Date - June 30, 1957

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